REMARKS

The Office Action dated May 17, 2010 has been received and considered. In this response, claims 1, 2, and 3 have been amended to address grammatical issues. Reconsideration of the outstanding rejections in the present application is respectfully requested based on the following remarks.

Claim Objection

Claims 1-3 were objected to due to informalities. Independent claims 1, 2, and 3 have been amended in a manner suggested by the Examiner. Accordingly, withdrawal of the objection is respectfully requested.

§112(1) Rejection of Claims 1-20

At page 3 of the Office Action, claims 1-20 are rejected under § 112, first paragraph, as failing to comply with the written description requirement. The Office alleges that the specification does not provide explicit or inherent support for the phrase "when in use" recited by independent claims 1 and 2. This rejection is hereby respectfully traversed, as the above-cited phrase is fully supported by the specification and figures as filed. Section 2163.02 of the MPEP states, "The subject matter of the claim need not be described literally (i.e., using the same terms or *in haec verba*) in order for the disclosure to satisfy the description requirement." In the present case, the claims are fully supported by the specification, even if the specification does not employ the same terms in every case. In particular, at page 5 of the specification techniques are disclosed for maintaining synchronization of operational nodes as well as techniques for initializing nodes that are not yet integrated into an operational cluster. Specifically, the specification recites two distinct phases, "during the initial startup phase the node has no knowledge of the system wide synchronized time, i.e. the macrotick time base is not established," and "during the synchronized operation phase the node has knowledge of the system wide synchronized time, i.e. the macrotick time base is established." Independent clam 1 recites, "each of the plurality of communication nodes is *arranged to communicate, when in use,* in accordance with a time base comprising consecutively elapsing time units associated with the

dynamic communication slots." Thus, in the example described in the specification, a node is either integrated into a cluster and able to communicate with other nodes of a cluster using a synchronized time base (and therefore the node is in use), or a node is not yet integrated into the cluster and therefore unable to communicate with other nodes. Accordingly, one skilled in the art would understand that the specification describes examples of both nodes that are in use (arranged to communicate) and nodes that are not in use. Claim 1 is therefore fully supported by the specification.

The Office further alleges that the claim limitations "time unit" and "sub-time unit" in independent claims 1, 2, and 3 are not *defined* in the Applicant's specification. At page 8 of the Office Action, the Examiner further alleges that the "Applicant's specification is silent with regard to the alleged definition of timeslot." This rejection is hereby respectfully traversed, as the above-cited terms are fully supported by the specification and figures as filed. As a first issue, there is no requirement under section 112 that the specification provide an explicit definition for claim terms. Further, one skilled in the art can fully understand the above-cited claim terms in view of the specification. To illustrate, FIG. 1, as indicated by the specification, is "a composite timing diagram of a timing hierarchy" illustrating aspects of a *time-division* multiple access technique capable of satisfying the operational requirements of the FlexRay standard protocol. The horizontal axis of the timing diagram represents time, and in particular, "a temporally recurring communication cycle 5." "The communication cycle 5 is in effect a timebase which is shared across all nodes of the system" (page 6, lines 7-11). The temporally recurring (repeating) timebase is divided into slots (communication slots), and each of these slots are further *sub-divided* into multiple sub-slots. For example, the specification states "[e]ach of static slots 11, 12, 13, 18 is made up of a set of consecutive time *intervals*, called minislots" (page 6, lines 26-27). The dynamic slots are similarly sub-divided (specification, page 7, lines 19-21). One skilled in the art would understand that the time intervals disclosed in the specification are examples of time units. Independent claim 1 recites, "a time base comprising consecutively elapsing time units associated with the dynamic communication slots, each consecutive time unit of the base comprising at least two elapsing sub-time units." Accordingly, one skilled in the art would understand that the *consecutively elapsing time units* recited in claim 1 are fully supported by the exemplary *consecutive time intervals* or *slots* described in the specification.

Anticipation Rejection of Claims 1-10 and 12-19

At page 3 of the Office Action, claims 1-10 and 12-19 are rejected under § 102(b) as being anticipated by Belschner et al. (FlexRay Requirements Specification, on record and provided by Applicant with the IDS filed on June 3, 2005). This rejection is hereby respectfully traversed. Independent claim 1 recites, "a time base comprising consecutively elapsing time units associated with the dynamic communication slots, each consecutive time unit of the base comprising at least two elapsing sub-time units and a transmission action point located at a boundary between two of the at least two sub-time units; wherein the each of the plurality of communication nodes is arranged to start and end, when in use, transmission of each frame of data at the transmission action point." Claims 2 and 3 recite similar features. The Office asserts that the above features are disclosed at Figures 4 and 7, and sections 2.2, 3.2, and 3.3.1, of Belschner. On the contrary, the referenced sections merely teach time-division multiplexing comprising static and/or dynamic communication cycle configurations, and further discloses that a frame ends with a CRC code. Therefore, Belschner does not disclose *consecutively elapsing time units associated with the dynamic communication slots, each consecutive time unit* of the base *comprising at least two elapsing sub-time units* or *a transmission action point located at a boundary between the sub-time units* in any manner.

Furthermore, at page 10 of the Office Action, the Examiner asserts that the "association between the claimed 'transmission action point' and the claimed 'time base' is not described in the claim language. The Applicants respectfully disagree. Independent claim 1 recites, "a transmission action point located at *a boundary between two of the at least two sub-time units*." The location of the claimed action point is explicitly identified at FIG. 2 and 3 (and by context at FIG. 1) as well at page 8, lines 16-17, which states that, "The minislot action point coincides with the boundary of two subsequent macroticks within the minislot."

Belschner also fails to disclose starting and ending transmission of each frame of data at a transmission action point. The Office relies on an erroneous assertion that a time associated with the end of a previous frame (identified by the CRC code) necessarily also represents a time corresponding to the beginning of a separate frame. Belschner discloses idle times between communicated frames and empty slots, such as illustrated at Figures 4 and 5 and described at

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section 3.2. Therefore, according to Belschner, the end of a frame transmission does not coincide with the start of another frame transmission. Belschner therefore necessarily fails to disclose starting and ending transmission of each frame of data at a transmission action point, as provided by claim 1.

For the reasons set forth above, Belschner fails to disclose at least the above-cited features of claim 1, and the similar features of claims 2 and 3. In addition, Belschner fails to disclose at least one feature of dependent claims 4-10 and 12-19, at least by virtue of their respective dependence on claims 1 and 3. In addition, these dependent claims recite additional novel features.

In view of the foregoing, withdrawal of the above-cited anticipation rejection and reconsideration of the claims is respectfully requested.

Obviousness Rejection of Claims 11 and 20

At page 7 of the Office Action, claims 11 and 20 are rejected under § 103(a) as being unpatentable over Belschner in view of Gee (US 5,537,549). This rejection is hereby respectfully traversed. Claim 11 depends from claim 1 and claim 20 depends from claim 3. As explained above, Belschner fails to disclose or render obvious at least one feature of each of claims 1 and 3. In addition, Gee fails to remedy the deficiencies of Belschner. According the cited references, individually and in combination, fail to disclose or render obvious at least one feature of each of claims 11 and 20, at least by virtue of their respective dependence on claims 1 and 3. In addition, these dependent claims recite additional novel and non-obvious features.

To illustrate, dependent claim 20 depends from claim 19 and together the claims recite, "extending a transmission to a transmission action point, wherein the transmission is by transmission of a busy signal." Dependent claim 11 recites similar features. Gee fails to disclose these features as asserted by the Office. Instead, Gee discloses a system wherein a "TX BUSY signal 182 is used to inform the access control 144 when the transmit processing circuit 141 has completed transmission of an Lpacket." In contrast, the busy signal recited in claims 11 and 20 extends a transmission to a transmission action point. Accordingly, neither Gee nor Belschner

discloses or renders obvious the above-cited features of claim 20, and the similar features of claims 11.

In view of the foregoing, withdrawal of the above-cited anticipation rejection and reconsideration of the claims is respectfully requested.

Conclusion

The Applicants respectfully submit that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

The Commissioner is hereby authorized to charge any fees that may be required, or credit any overpayment, to Deposit Account Number 50-3797.

Respectfully submitted,

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_____July 14, 2010_____
Date